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1627

## RAW SEQUENCE LISTING

DATE: 04/08/2002

PATENT APPLICATION: US/09/710,058A

TIME: 16:05:56

#8

Input Set : A:\A68531-1.ST25.txt

Output Set: N:\CRF3\04082002\I710058A.raw

p.5

3 <110> APPLICANT: Anderson, David  
4 Peelle, Beau  
6 <120> TITLE OF INVENTION: METHODS AND COMPOSITIONS COMPRISING RENILLA GFP  
8 <130> FILE REFERENCE: A-68531-1/RMS/CYO  
10 <140> CURRENT APPLICATION NUMBER: US 09/710,058A  
11 <141> CURRENT FILING DATE: 2000-11-10  
13 <150> PRIOR APPLICATION NUMBER: US 60/164,592  
14 <151> PRIOR FILING DATE: 1999-11-10  
16 <160> NUMBER OF SEQ ID NOS: 85  
18 <170> SOFTWARE: PatentIn version 3.1  
20 <210> SEQ ID NO: 1  
21 <211> LENGTH: 1079  
22 <212> TYPE: DNA  
23 <213> ORGANISM: Renilla muelleri  
25 <220> FEATURE:  
26 <221> NAME/KEY: CDS  
27 <222> LOCATION: (259)..(975)  
28 <223> OTHER INFORMATION:  
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34 gtatttacgt cagacctgtc taatcgaaac cacaacaaac tcttaaaata agccacattt 120  
36 acataaatatc taagagacgc ctcatTTtaag agtagtaaaa atataatata tgatagagta 180  
38 tacaactctc gccttagaca gacagtgtgc aacagagtaa ctcttgTTaa tgcaatcgaa 240  
40 agcgtcaaga gagataag atg agt aaa caa ata ttg aag aac act tgt tta 291  
41 Met Ser Lys Gln Ile Leu Lys Asn Thr Cys Leu  
42 1 5 10  
44 caa gaa gta atg tcg tat aaa gta aat ctg gaa gga att gta aac aac 339  
45 Gln Glu Val Met Ser Tyr Lys Val Asn Leu Glu Gly Ile Val Asn Asn  
46 15 20 25  
48 cat gtt ttt aca atg gag ggt tgc ggc aaa ggg aat att tta ttc ggc 387  
49 His Val Phe Thr Met Glu Gly Cys Gly Lys Gly Asn Ile Leu Phe Gly  
50 30 35 40  
52 aat caa ctg gtt cag att cgt gtc acg aaa ggg gcc cca ctg cct ttt 435  
53 Asn Gln Leu Val Gln Ile Arg Val Thr Lys Gly Ala Pro Leu Pro Phe  
54 45 50 55  
56 gca ttt gat att gtg tca cca gct ttt caa tat ggc aac cgt act ttc 483  
57 Ala Phe Asp Ile Val Ser Pro Ala Phe Gln Tyr Gly Asn Arg Thr Phe  
58 60 65 70 75  
60 acg aaa tat ccg aat gat ata tca gat tat ttt ata caa tca ttt cca 531  
61 Thr Lys Tyr Pro Asn Asp Ile Ser Asp Tyr Phe Ile Gln Ser Phe Pro  
62 80 85 90  
64 gca gga ttt atg tat gaa cga aca tta cgt tac gaa gat ggc gga ctt 579  
65 Ala Gly Phe Met Tyr Glu Arg Thr Leu Arg Tyr Glu Asp Gly Gly Leu

ENTERED

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66          95          100          105
68 gtt gaa att cgt tca gat ata aat tta ata gaa gac aag ttc gtc tac      627
69 Val Glu Ile Arg Ser Asp Ile Asn Leu Ile Glu Asp Lys Phe Val Tyr
70          110          115          120
72 aga gtc gaa tac aaa ggt agt aac ttc cca gat gat ggt ccc gtc atg      675
73 Arg Val Glu Tyr Lys Gly Ser Asn Phe Pro Asp Asp Gly Pro Val Met
74          125          130          135
76 cag aag act atc tta gga ata gag cct tca ttt gaa gcc atg tac atg      723
77 Gln Lys Thr Ile Leu Gly Ile Glu Pro Ser Phe Glu Ala Met Tyr Met
78 140          145          150          155
80 aat aat ggc gtc ttg gtc ggc gaa gta att ctt gtc tat aaa cta aac      771
81 Asn Asn Gly Val Leu Val Gly Glu Val Ile Leu Val Tyr Lys Leu Asn
82          160          165          170
84 tct ggg aaa tat tat tca tgt cac atg aaa aca tta atg aag tcg aaa      819
85 Ser Gly Lys Tyr Tyr Ser Cys His Met Lys Thr Leu Met Lys Ser Lys
86          175          180          185
88 ggt gta gta aag gag ttt cct tcg tat cat ttt att caa cat cgt ttg      867
89 Gly Val Val Lys Glu Phe Pro Ser Tyr His Phe Ile Gln His Arg Leu
90          190          195          200
92 gaa aag act tac gta gaa gac ggg ggg ttc gtt gaa cag cat gag act      915
93 Glu Lys Thr Tyr Val Glu Asp Gly Gly Phe Val Glu Gln His Glu Thr
94          205          210          215
96 gct att gct caa atg aca tct ata gga aaa cca cta gga tcc tta cac      963
97 Ala Ile Ala Gln Met Thr Ser Ile Gly Lys Pro Leu Gly Ser Leu His
98 220          225          230          235
100 gaa tgg gtt taa acacagttac attacttttt ccaattcgtg tttcatgtca      1015
101 Glu Trp Val
104 aataataatt ttttaacaa ttatcaatgt tttgtgatat gtttgtaaaa aaaaaaaaaa      1075
106 aaaa      1079
109 <210> SEQ ID NO: 2
110 <211> LENGTH: 238
111 <212> TYPE: PRT
112 <213> ORGANISM: Renilla muelleri
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120 Tyr Lys Val Asn Leu Glu Gly Ile Val Asn Asn His Val Phe Thr Met
121          20          25          30
124 Glu Gly Cys Gly Lys Gly Asn Ile Leu Phe Gly Asn Gln Leu Val Gln
125          35          40          45
128 Ile Arg Val Thr Lys Gly Ala Pro Leu Pro Phe Ala Phe Asp Ile Val
129          50          55          60
132 Ser Pro Ala Phe Gln Tyr Gly Asn Arg Thr Phe Thr Lys Tyr Pro Asn
133 65          70          75          80
136 Asp Ile Ser Asp Tyr Phe Ile Gln Ser Phe Pro Ala Gly Phe Met Tyr
137          85          90          95
140 Glu Arg Thr Leu Arg Tyr Glu Asp Gly Gly Leu Val Glu Ile Arg Ser
141          100          105          110
144 Asp Ile Asn Leu Ile Glu Asp Lys Phe Val Tyr Arg Val Glu Tyr Lys

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145          115          120          125
148 Gly Ser Asn Phe Pro Asp Asp Gly Pro Val Met Gln Lys Thr Ile Leu
149          130          135          140
152 Gly Ile Glu Pro Ser Phe Glu Ala Met Tyr Met Asn Asn Gly Val Leu
153 145          150          155          160
156 Val Gly Glu Val Ile Leu Val Tyr Lys Leu Asn Ser Gly Lys Tyr Tyr
157          165          170          175
160 Ser Cys His Met Lys Thr Leu Met Lys Ser Lys Gly Val Val Lys Glu
161          180          185          190
164 Phe Pro Ser Tyr His Phe Ile Gln His Arg Leu Glu Lys Thr Tyr Val
165          195          200          205
168 Glu Asp Gly Gly Phe Val Glu Gln His Glu Thr Ala Ile Ala Gln Met
169          210          215          220
172 Thr Ser Ile Gly Lys Pro Leu Gly Ser Leu His Glu Trp Val
173 225          230          235
176 <210> SEQ ID NO: 3
177 <211> LENGTH: 1104
178 <212> TYPE: DNA
179 <213> ORGANISM: Ptilosarcus Gurneyi
181 <400> SEQUENCE: 3
182 tcggcacgag ctggcctcca cacttttagac aaaatgaacc gcaacgtatt aaagaacact      60
184 ggactgaaaag agattatgtc ggcaaaagct agcgttgaag gaatcgtgaa caatcacggt      120
186 ttttccatgg aaggatttgg aaaaggcaat gtattatttg gaaaccaatt gatgcaaattc      180
188 cgggttacaa agggaggtcc gttgccattc gctttcgata ttgtttccat agctttccaa      240
190 tacgggaatc gcactttcac gaaataccca gacgacattg cggactactt tgttcaatca      300
192 ttcccggctg gattttttcta cgaaagaaat ctacgctttg aagatggcgc cattgttgac      360
194 attcgttcag atataagttt agaagatgat aagttccact acaaagtgga gtatagaggc      420
196 aacggtttcc ctagtaacgg acccgtgatg caaaaagcca tcctcggcat ggagccatcg      480
198 tttagagtg gctacatgaa cagcggcggt ctggtgggcg aagtagatct cgtttacaaa      540
200 ctcgagtcag ggaactatta ctcgtgccac atgaaaacgt tttacagatc caaaggtgga      600
202 gtgaaagaat tcccgggaata tcactttatc catcatcgtc tggagaaaac ctacgtggaa      660
204 gaagggaagc tcgtggaaca acacgagacg gccattgcac aactgaccac aattggaaaa      720
206 cctctgggct cccttcatga atgggtgtag aaaatgacca atatactggg gaaaccgata      780
208 accgtttgga agcttgtgta tacaaattat ttggggtcac tttgtaatgt gtatgtgtgt      840
210 tgtatgatca atagacgtcg tcattcatag cttgaatcct tcagcaaaag aaacctcgaa      900
212 gcatattgaa acctcgaagc atattgaaac ctcgacggag agcgtaaaga gaccgcacaa      960
214 attaacgcgt ttcaaccagc agttggaatc tttaaaccga tcaaaactat taatataaat     1020
216 atatataccc tgtataactt atatatatct atatagtttg atattgatta aatctgttct     1080
218 tgatcaaaaa aaaaaaaaaa aaaa                                     1104
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223 <212> TYPE: DNA
224 <213> ORGANISM: Ptilosarcus Gurneyi
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227 <221> NAME/KEY: CDS
228 <222> LOCATION: (7)..(720)
229 <223> OTHER INFORMATION:
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Input Set : A:\A68531-1.ST25.txt

Output Set: N:\CRF3\04082002\I710058A.raw

234	Met Asn Arg Asn Val Leu Lys Asn Thr Gly Leu Lys Glu Ile	
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237	atg tcg gca aaa gct agc gtt gaa gga atc gtg aac aat cac gtt ttt	96
238	Met Ser Ala Lys Ala Ser Val Glu Gly Ile Val Asn Asn His Val Phe	
239	15 20 25 30	
241	tcc atg gaa gga ttt gga aaa ggc aat gta tta ttt gga aac caa ttg	144
242	Ser Met Glu Gly Phe Gly Lys Gly Asn Val Leu Phe Gly Asn Gln Leu	
243	35 40 45	
245	atg caa atc cgg gtt aca aag gga ggt ccg ttg cca ttc gct ttc gac	192
246	Met Gln Ile Arg Val Thr Lys Gly Gly Pro Leu Pro Phe Ala Phe Asp	
247	50 55 60	
249	att gtt tcc ata gct ttc caa tac ggg aat cgc act ttc acg aaa tac	240
250	Ile Val Ser Ile Ala Phe Gln Tyr Gly Asn Arg Thr Phe Thr Lys Tyr	
251	65 70 75	
253	cca gac gac att gcg gac tac ttt gtt caa tca ttt ccg gct gga ttt	288
254	Pro Asp Asp Ile Ala Asp Tyr Phe Val Gln Ser Phe Pro Ala Gly Phe	
255	80 85 90	
257	ttc tac gaa aga aat cta cgc ttt gaa gat ggc gcc att gtt gac att	336
258	Phe Tyr Glu Arg Asn Leu Arg Phe Glu Asp Gly Ala Ile Val Asp Ile	
259	95 100 105 110	
261	cgt tca gat ata agt tta gaa gat gat aag ttc cac tac aaa gtg gag	384
262	Arg Ser Asp Ile Ser Leu Glu Asp Asp Lys Phe His Tyr Lys Val Glu	
263	115 120 125	
265	tat aga ggc aac ggt ttc cct agt aac gga ccc gtg atg caa aaa gcc	432
266	Tyr Arg Gly Asn Gly Phe Pro Ser Asn Gly Pro Val Met Gln Lys Ala	
267	130 135 140	
269	atc ctc ggc atg gag cca tcg ttt gag gtg gtc tac atg aac agc ggc	480
270	Ile Leu Gly Met Glu Pro Ser Phe Glu Val Val Tyr Met Asn Ser Gly	
271	145 150 155	
273	gtt ctg gtg ggc gaa gta gat ctc gtt tac aaa ctc gag tca ggg aac	528
274	Val Leu Val Gly Glu Val Asp Leu Val Tyr Lys Leu Glu Ser Gly Asn	
275	160 165 170	
277	tat tac tcg tgc cac atg aaa acg ttt tac aga tcc aaa ggt gga gtg	576
278	Tyr Tyr Ser Cys His Met Lys Thr Phe Tyr Arg Ser Lys Gly Gly Val	
279	175 180 185 190	
281	aaa gaa ttc ccg gaa tat cac ttt atc cat cat cgt ctg gag aaa acc	624
282	Lys Glu Phe Pro Glu Tyr His Phe Ile His His Arg Leu Glu Lys Thr	
283	195 200 205	
285	tac gtg gaa gaa gga agc ttc gtg gaa caa cac gag acg gcc att gca	672
286	Tyr Val Glu Glu Gly Ser Phe Val Glu Gln His Glu Thr Ala Ile Ala	
287	210 215 220	
289	caa ctg acc aca att gga aaa cct ctg ggc tcc ctt cat gaa tgg gtg	720
290	Gln Leu Thr Thr Ile Gly Lys Pro Leu Gly Ser Leu His Glu Trp Val	
291	225 230 235	
293	tagaaaaatga ccaatatact ggggaaaaatc accaatatac tggggaaaaat gaccaattta	780
295	ctgggggaaaa tgaccaatat actgtagaaa atcaccaata tactggggaa aatgaccaat	840
297	ttactggggga aatgaccaat ttactgtaga aaatcaccaa tatactgtgg aaaatgacca	900
299	aaatactgta gaaatgttca cactgggttg ataaccgttt cgataaccgt ttggaagctt	960
301	gtgtatacaa gttatttggg gtcattttgt aatgtgtatg tgtgttgtat gatctataga	1020

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Input Set : A:\A68531-1.ST25.txt

Output Set: N:\CRF3\04082002\I710058A.raw

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303 cgctgctcatt catagcttga atccttcagc aaaagaaacc tcgaagcata ttgaaacctc 1080
305 gacggagagc ataaagagac cgcacgtaca caaattataa taccagcagt tggaatcttt 1140
307 aaaccgatca aaactattaa tatatatata caccctgtat aacatatata tatatatata 1200
309 tctacatagt ttgatattga ttaaattctgt tcttgatcac taaaaaaaaa aaaaaaaaaa 1260
311 aaaaaaaaaa aaaaaaaaaa 1279
314 <210> SEQ ID NO: 5
315 <211> LENGTH: 238
316 <212> TYPE: PRT
317 <213> ORGANISM: Ptilosarcus Gurneyi
319 <400> SEQUENCE: 5
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322 1 5 10 15
325 Ala Lys Ala Ser Val Glu Gly Ile Val Asn Asn His Val Phe Ser Met
326 20 25 30
329 Glu Gly Phe Gly Lys Gly Asn Val Leu Phe Gly Asn Gln Leu Met Gln
330 35 40 45
333 Ile Arg Val Thr Lys Gly Gly Pro Leu Pro Phe Ala Phe Asp Ile Val
334 50 55 60
337 Ser Ile Ala Phe Gln Tyr Gly Asn Arg Thr Phe Thr Lys Tyr Pro Asp
338 65 70 75 80
341 Asp Ile Ala Asp Tyr Phe Val Gln Ser Phe Pro Ala Gly Phe Phe Tyr
342 85 90 95
345 Glu Arg Asn Leu Arg Phe Glu Asp Gly Ala Ile Val Asp Ile Arg Ser
346 100 105 110
349 Asp Ile Ser Leu Glu Asp Asp Lys Phe His Tyr Lys Val Glu Tyr Arg
350 115 120 125
353 Gly Asn Gly Phe Pro Ser Asn Gly Pro Val Met Gln Lys Ala Ile Leu
354 130 135 140
357 Gly Met Glu Pro Ser Phe Glu Val Val Tyr Met Asn Ser Gly Val Leu
358 145 150 155 160
361 Val Gly Glu Val Asp Leu Val Tyr Lys Leu Glu Ser Gly Asn Tyr Tyr
362 165 170 175
365 Ser Cys His Met Lys Thr Phe Tyr Arg Ser Lys Gly Gly Val Lys Glu
366 180 185 190
369 Phe Pro Glu Tyr His Phe Ile His His Arg Leu Glu Lys Thr Tyr Val
370 195 200 205
373 Glu Glu Gly Ser Phe Val Glu Gln His Glu Thr Ala Ile Ala Gln Leu
374 210 215 220
377 Thr Thr Ile Gly Lys Pro Leu Gly Ser Leu His Glu Trp Val
378 225 230 235
381 <210> SEQ ID NO: 6
382 <211> LENGTH: 238
383 <212> TYPE: PRT
384 <213> ORGANISM: Aequorea victoria
386 <400> SEQUENCE: 6
388 Met Ser Lys Gly Glu Glu Leu Phe Thr Gly Val Val Pro Ile Leu Val
389 1 5 10 15
392 Glu Leu Asp Gly Asp Val Asn Gly His Lys Phe Ser Val Ser Gly Glu
393 20 25 30

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Use of n and/or Xaa has been detected in the Sequence Listing.  
 Review the Sequence Listing to insure a corresponding  
 explanation is presented in the <220> to <223> fields of  
 each sequence using n or Xaa.

## VERIFICATION SUMMARY

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Input Set : A:\A68531-1.ST25.txt

Output Set: N:\CRF3\04082002\I710058A.raw

L:1329 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8  
L:1333 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8  
L:1337 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8  
L:1341 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8  
L:1345 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8  
L:1349 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8  
L:1353 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8  
L:1357 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8  
L:1361 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8  
L:1365 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8  
L:1369 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8  
L:1373 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8  
L:1377 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8  
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L:1385 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8  
L:1389 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8  
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L:1484 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12  
L:1509 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13  
L:1513 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13  
L:1537 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14  
L:1541 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14  
L:2103 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51